SCIENTIFIC AMERICAN.

THF ADVOCATF OF INDUSTRY AND ENTERPRISE, AND JOURNAL OF MECHANICAL AND OTHER IMPROVEMENTS.

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THE
SCIENTIFIC AMERICAN,
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RUFUS PORTER,—Editor.

The Dutch Solomon.

There was a Dutchman;
His name may have been Schmidt, or maybe Brown,
I only know there wasn't in the town
Another such man.
He had grown rich and fat, and full of grease,
And so they made him Justice of the Peace.

Well, once upon a time
A Spaniard and a Frenchman came before him,
With a perplexing difference to bore him.
The Frenchman's crime
Was simply a contrivance of *finan·e*,
Which made the Spaniard in a passion dance.

'Twas all about a pig
The Frenchman was a master of the fiddle,
With which, the Spaniard said, he tried to diddle
Folks small and big.
The Frenchman taught the Spaniard's pig to dance,
Neglecting to get payment in advance.

Now, education
Is certainly a thing that should be paid for;
For learned pigs, as well as men, are made for
An occupation
By which to get a living; they should give
The teacher, too, some little chance to live.

But then the Spaniard swore
That his fat pig was taught a queer *chassea*,
By which it broke the pen and waltz'd away;
And, what is more,
He swore the Frenchman had secured the pig,
Instructing it in a Swartwouter's jig!

The fiddler stated—
Senor Espaniole was a pack of lies—
A rogue—a *mauvais* rascal—otherwise,
Intoxicated!
And so the two kept swearing at each other,
Until the Dutch Judge got into a bother.

Against the diddler
Six witnesses emphatically swore,
And, what was curious, as many more
Swore for the fiddler!
This puzzled the Dutch Justice insomuch
That he swore "Thunder!"—in the best of Dutch.

The Judge got nettled:
He said the pig to *some one* must belong;
And which was right and which was in the wrong
Was to be settled.
Six swore to what the other six denied,
Which made a ticklish question to decide.

"It is all fudge!
Sex of you must be liar—dat ish true—
Yaw, and de oder *sex* are lyin' too,"
Exclaimed the Judge!
"*Donner and blitzen!* listen to de law:
I find de little pig an owner—*Yaw!*"

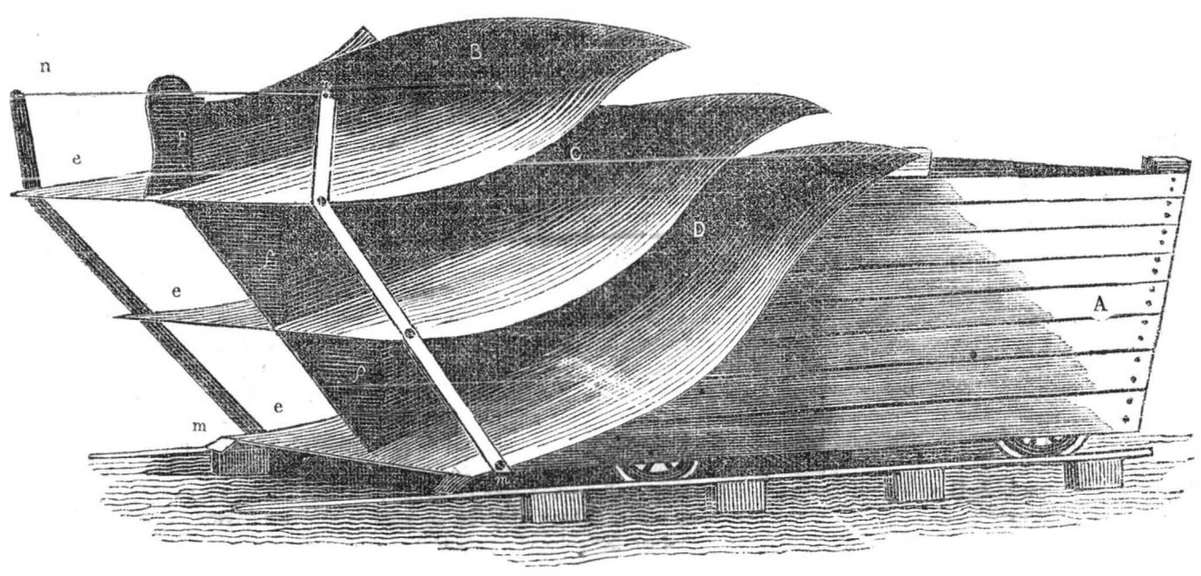
And then he closed the sport,
He sent the angry litigants away;
Cyused the twelve lying witnesses to pay
The costs of court!
And took the pig himself! So ends the rig—
And "not another word about the pig?"

MONEY AND A FRIEND.

I once had *money* and a *friend*; on both I set great store,
I lent my —— to my —— and took his note therefor;
I ask'd my —— of my ——and naught but words I got:
I lost my —— and my —— for sue him I would not.
If I had —— and a —— as once I had before,
I'd keep my —— and my —— and play the fool no more.

NECESSITY, THE MOTHER OF INVENTION.—The following anecdote was related to us a few days since by a friend of ours, of Day & Martin, whose blacking is so extensively used in this country.—They were once poor servant boys in the city of London, but by chance one of them obtained a recipe for making blacking, and they resolved to open shop. Accordingly a small cellar was obtained and notice given, through the newspapers, to the world in general, and city of London in particular, that "Day and Martin had opened shop," and were the manufacturers of blacking. But there were other establishments of long standing and that had the capital too, and they found that it would be impossible to live by their new business, unless their joint ingenuity could devise some means to "raise the steam." They at last hit upon the following plan. Several splendid suits of livery were purchased, intended for the servants of noblemen of different ranks. They dressed in their new suits, would go to the different shops where blacking was usually sold, being always careful not to apply to any of their own customers, and enquire for Day & Martin's blacking, and usually the shop keeper having none of Day & Martin's would insist upon sending some other kind, but it was of no use. Their Lord or Count must have Day & Martin's, as that was superior to any other. In a short time by this means they raised public demand for *the article*, and no other blacking was more used among the nobility than Day & Martin's. They are now among the most wealthy merchants of London. One of Mr. Day's daughters having married but a short time since, her father gave her as a marriage portion £100,000. We find that most of the wealthy men of this country commenced in life with no other capital than a good character, and that they accumulated their wealth by prudence, perseverance and close attention to business.

GREGGS' TRIPLE SNOW-PLOW.



INTRODUCTION.—When railroads and railroad cars were first introduced in this country, one principal objection presented against them by their opponents, was the impossibility of using them in winter during the prevalence of snows and snow-storms; and it proved a tedious and expensive job, after a heavy fall of snow, to clear the track by the use of the common shovel. But a steam snow-plow was soon invented and introduced, which was capable of clearing the track where the drifts extended but short distances, and were not more than three or four feet deep. But this process usually requires three or four engines combined, and where the drifts are six to twelve feet deep, which often occurs in winter, many men are employed with shovels, and delays of 6, 12, or 20 hours occur in driving the first train after a heavy fall of snow. To remedy this expense and delay, is the object of the invention now presented. This plow having three several pairs of wings, or shovel-plates—large spiral plates which have a shovel edge in front, but otherwise answer to the shares and mould-boards of the common plow—encounters the snow at different points of depth from its surface, and will effectually clear its way through a body of snow eight or ten feet in depth. It cannot be doubted that this improvement will be adopted by the proprietors of all the principal railroads in the Northern States, and will prove an important advantage to the travelling public by preventing the painful delays in which cargoes of passengers have sometimes been compelled to pass whole nights in the cars, stationary and embargoed during the most severe storms.

EXPLANATION.—This machine consists of a firm and well supported box or body, A, mounted on four wheels, and armed in front with three pairs of wings, B, C, D, made of stout iron plate, sharp in front, and so arranged that the first pair, B, will encounter the snow about five feet from the ground. Each wing is so formed that a part of the front thereof, *e e*, is horizontal, and operates like a shovel, while another part, *f f*, is vertical, but inclined forward, and operates like the coulter of a common plow. At this point, the two opposite wings are united, while the rear extremities of each pair are about seven feet apart, and sufficiently elevated to throw the snow five to ten feet high, according to its depth. It will be seen that the first pair of wings, B, are placed in advance of the others, and throw off the upper strata of snow, while the second pair, C, following, encounter another portion at a point about thirty inches below the first, thus preparing the way for the third pair, D, which run within two inches of the rails and finish the work: the wings being curved, like a mould-board, deposit the snow completely outside of the road. The front corners of the wings are supported by two vertical plates, *m n*, with sharp edges in front, and these are connected and supported by a cap plate, *n n*, at the top. When constructed for double track railroads, where it is required to throw off the snow in one direction, three single wings of larger dimensions are arranged on the same principle, and produce similar effects. In this case, the forward running wheel of one side, is placed farther back to accommodate the bottom wing. Letters patent have been secured for the invention, by Mr. J. A. Gregg, of Derry, N.H.

JACK ASHORE DRILLING AS INFANTRY.—At the time that the attack upon Point Isabel was apprehended, and the brave sailors of the fleet were transferred to the shore to aid in the defence of the Point, the officers were a little non-plused in drilling them in "land tactics." The word of command as given by the infantry officer was all "hand over fist" to the sailors. They could not get along with the "manual" well enough, but when it came to the "movements" they were thrown completely on their beam ends, and Lieutenant R. of the Navy was compelled to aid his friend of the land service.

The officer, when desirous of forming the company into line in the direction in which they were marching, cried "company into line!" but the tars only hitched up their trowsers, and marched on till Lieut. R. called out "*line of battle ships abreast on the starboard beam*," when the movement was accurately and expeditiously executed. He then wished to deploy the men as skirmishers and "charge," and ordered, "*line of battle ships bear down on the enemy*," and off they rushed like a whirlwind, with a loud huzza, sticking their bayonets into every clump of bushes, or slashing with their sabres every prickly pear within their reach. Major —— of the infantry, who was superintending the drill, ordered "rally on the reserve!" but on rolled the sailors like the waves of the ocean with redoubled energy, till their own officer who, we believe, had the order explained to him, cried out "*line of battle ships ready about*." The old boatman who acted as sergeant, replied instantly, "*aye, aye, sir—all ready!*" "Bout ship and away she goes, all sail set," bawled the lieutenant. Every man wheeled on his own axis, and steering for his former position, came in with a perfect rush, all right and tight.—*N. O. Picayune*, Aug. 11th.

AN INGENIOUS PUFF.—A story is told of Signor Blitz, which took place in Hartford. It runs thus: "A clergyman came into a public house where he was stopping, and, without knowing the Signor was present, commenced talking pretty severely against the trickery. The Signor bore it very good naturedly, and, stepping up to the clergyman, expressed his opinion that such language came with an ill-grace from one who had a pack of cards in his pocket, and who had probably come here for the purpose of gambling. This charge was received with great surprise by the gentlemen present; and the parson was in a towering passion at the insinuation. The Signor reitered his charge, and agreed to prove it. The clergyman defied his examination; but lo and behold! he pretended to take from the parsons bosom a pack of cards; another pack was found in his hat, and a box of dice in his coat pocket. If he had been caught with a sheep in his pocket he could not have been more surprised; and, joining in the general laugh, he evinced a determination to be out of the Signor's company as soon as possible."

SOLDIERS' PAY.—The question is often asked what pay does the soldier get while in the army: the following statement from the Norfolk Beacon, will therefore be of interest, and useful to be kept as a reference. Every one can, with it before them, make a probable estimate of the expenses of the war:—Major General, three hundred and seventy-six dollars per month; Aid to ditto, additional pay, thirty-eight dollars; Brigadier General, two hundred and forty-six dollars; Aid to ditto, additional pay, twenty-eight dollars; Colonel of Infantry, one hundred and sixty-six dollars; Lieutenant Colonel, one hundred and forty-five dollars; Major, one hundred and twenty-nine dollars; Captain, eighty dollars; First Lieutenant, seventy dollars; Second Lieutenant, sixty-five dollars; Adjutant, eighty-three dollars; Sergeant, thirteen dollars; Corporal, ten dollars; Privates, each, eight dollars; Colonel of Cavalry, one hundred and eighty-three dollars; Lieutenant Colonel, one hundred and six-two dollars; Major, one-hundred and forty-one dollars; Captain, one hundred and six dollars; First and Second Lt., each ninety dollars; Adjutant, one hundred dollars, Privates, self and horse, twenty dollars.

The cost of fifty thousand volunteers, of due proportion of Infantry and Cavalry, for twelve months, would be $13,230,450.

DYEING STRAW AND CHIP BONNETS.—Chip hats being composed of the shavings of wood are stained black in various ways. First by being boiled in strong logwood liquor three or four hours; they must be often taken out to cool in the air, and now and then a small quantity of green copperas must be added to the liquor, and this continued for several hours. The saucepan or kettle that they are dyed in may remain with the bonnets in it all night; the next morning they must be taken out and dried in the air, and brushed with a soft brush. Lastly a sponge is dipped in oil, and squeezed almost to dryness; with this the bonnets are rubbed all over, both inside and out, and then sent to the blockers to be blocked.

HOW TO ADDRESS A LADY.—A bachelor may address a lady as "Madam;" if, however, he claim an acquaintance with her, he may employ the terms "dear madam;" and should there be a little bit of tender attachment, "My very dear Madam;" but in case of being in love, and an interchange of affection be evinced, something like the endearing term of "dear girl" may be used. Always say "dear girl" when the object addressed is over thirty, for at that age women like to be thought young. When a man is in love, and the woman he addresses in a similar predicament, the more extravagant the terms used to convey his passion, the more will his suit be admired. Remember, always address a woman over thirty as "my dearest girl," or "charming girl."

JUDGE GRIDLEY AND RUMSELLERS.—It is stated that a case of violation of the License law came before Judge Gridley, at the late circuit in Oswego county. The jury, without leaving their box, immediately brought in a verdict of "guilty." The Judge after having it hinted to him by sundry "respectable" individuals in the village that $25 would be as much as was usual to impose as a penalty in such cases, and would be quite satisfactory to all the parties concerned—to which hints he gave a respectful and silent hearing—had the prisoner brought into court, and imposed upon him a fine of $150, and ordered that he stand committed until it was paid.

A YANKEE SPECULATION.—A Yankee cigar dealer in Cincinnati having several thousand genuine "Kentuck Spanish" and "Rappahannocks" on hand, having heard that General Taylor, upon the surrender of Matamoros, came in possession of a large quantity of cigars, got a number of boxes, which he labelled "Cigarros—Rackensack de la Palma—Arista Primo Generalissimo," and placing them in a conspicuous place in his store, a hotel keeper from the country espying them, offered to take them all at $35, which it is needless to say the Yankee took, and the smokers of the weed in a certain little town out on the Wabash are revelling in all the delights of the geuine "Rackensack de la Palmas."

WILL YOU TAKE IT IN CORN.—An amusing scene occurred some time since, in the office of a Justice of the Peace, at Donaldsonville. A Kentucky flat-boatman had been committed for a breach of the peace, when a friend of his after the breaking up of the Court, asked the Justice what it would cost to give the Frenchman, who had made the complaint, a good thrashing.

The Justice, who is fond of a joke, replied, "About fifty dollars."

The Kentuckian, thinking the answer serious, inquired—

"Will you take it in corn?"

THE INDIAN'S LOVE OF GROG.—A distinguished Pottowatamie warrior presented himself to the Indian agent at Chicago, observing that he was a very good man, very good indeed—and a good friend to the Americans, and requested a dram of whiskey. The agent replied that he never gave whiskey to good men—good men never ask for whiskey, and never drink it. It was only *bad* Indians who asked for whiskey, and liked to drink it. "Then," replied the Indian, quickly, in his broken English, "me damn rascal."

TALL CORN.—A letter in the N. O. Delta says:—"I made a short visit to Camargo recently, and on the road I saw about half an acre of corn the shortest stalk of which, with corn upon it, was not less than eighteen feet high!

A LIST OF PATENTS ISSUED FROM THE 13TH JUNE TO 2ND JULY, 1846.

(Continued from No. 51.)

To Zenas C. Robbins, of Washington, D.C., for improvement in Self-acting Brakes for Carriages: patented 13th June.

To George Welty, of West Newton, Pa., for improvement in Working Hides: patented 13th June.

To John Du Bois, Jr., of Cascade, Pa., for improvement in Self-acting Brakes for Carriages: patented 13th June.

To David S. Hallister, of Baltimore, Md., for improvement in Corn Shellers: patented 13th June.

To Albert S. Southworth & Josiah J. Hawes, of Boston, Mass., for improvement in Apparatus for Holding Plates for Polishing: patented 13th June.

To Benjamin F. Adams, of New Bedford, Mass., for improvement in machinery for making cordage: patented 13th June.

To George S. Scofield, of Philadelphia, Pa., for improvement in machinery for cutting Bookbinders' Boards: patented 16th June.

To Leonard Bliss, of Truxton, N.Y., for improvement in fastening and adjusting Plane Irons, (assigned to Samuel T. Jeffery): patented 16th June.

To Abraham Pawling, of Philadelphia, Pa., for improvement in Safety Stirrups: 16th June.

To Frederick Forest, of Philadelphia, Pa., for improvement in Spring Mattresses: 16th June.

To Jesse Fitzgerald, of New York city, for improvement in Horse Powers: patented 16th June.

To John Renfrew, of Fayetteville, Pa., for improvement in Pumps for raising water: patented 16th June.

To Charles W. Grannis, of Collins, N.Y., for improvement in Tuyeres: patented 16th June.

To Daniel Clow, of Port Byron, N.Y., for improvement in Fanning Mills: patented 16th June.

To F. B. Hyatt, of Maysville, Ky., for improvement in Pumps for Water, (assigned to Samuel K. Sharpe): patented 16th June.

To David Hough, Jr., of New York city, for improvement in Ladies' Skirts: patented 16th June, ante-dated 8th June, 1846.

To William Cobb, of Albany, N.Y., for improvement in Cooking Stoves: patented 16th June.

To Frederick A. Stuart, of Catharine, N.Y., for improvement in Winnowing Machines: patented 20th June.

To Silas Hart, of New Haven, N.Y., for improvement in Machines for Lasting Shoes and Boots: patented 20th June.

To Hezekiah Olney and David G. Raven, of Gouverneur, and Jeremiah H. Whelpley, of Champion, N.Y., for improvement in the Induction and Eduction of Steam: patented 20th June.

To Daniel Treadwell, of Cambridge, Mass., for improvement in Machinery for Welding and Forming wrought iron Cannon: patented 20th June.

To John R. Remington, of Lowndes county, Ala., for improvement in Horse Powers: 20th June.

To Stephen M. Yeaman, of Elizabeth, Ky., for improvement in Winnowing Machines: patented 20th June.

To Lucius Stebbins, of Hartford, Ct., for improvement in the mode of Coloring Maps: patented 16th June.

To William Resor, of Cincinnati, Ohio, for Design for Stoves: patented 23d May.

To William P. Cresson, of Philadelphia, Pa., for Designs for Stoves; patented 23d May.

To William Shaw, of Albany, N.Y., for improvement in Cooking Stoves: patented 27th June.

To Royal E. House, of New York city, for improvement in stop-cocks for Filtering, (assigned to William Ballard): patented 27th June.

To Russel Tomlinson, of Jackson, Mich., for improvement in Straw Carriers: patented 27th June.

To Daniel Cary, of Clarkson, N.Y., for improvement in the Horse Power: patented 27th June.

To Conrad Kile, of Nashville, Ohio, for improvement in Tailors' Measures: patented 27th June.

To James Cox, of Brush Valley, Pa., for improvement in Fire Escapes: patented 27th June.

To Samuel Pierce, of Peekskill, N.Y., for improvement in Stoves: patented 27th June.

To George E. Waring, of Stamford, Conn., and Richard E. Peterson, of New York city, administrators of Alexander S. Wolcott, deceased, for improvement in Kitchen Ranges: 27th June.

To Damon A. and Smith Church, of Friendship, N.Y., for improvement in Screens for Grain, &c.: patented 27th June.

To Henry D. and Jacob McK. Fouse, of Baltimore, Md., for improvement in Stoves: patented 27th June.

To John Durant, of New York city, for improvement in Pencil Cases, (assigned to A. G. Bagley): patented 27th June.

To Henry S. Davis, of Westernville, N.Y., for improvement in Boot Crimps: patented 27th June.

To Amaria Pierce, of Philadelphia, Pa., for improvement in Apparatus for Generating Gas: patented 27th June.

To Matthew Vassar, of Poughkeepsie, N.Y., for improvement in Vent Plugs: patented 27th June.

To Warren Dutcher, of Bennington, Vt., for improvement in Looms: patented 27th June.

To James S. Glover, of Ipswich, Mass., for improvement in Warp Net Fabrics, (assigned to Geo. W. Heard): patented 27th June.

To John McMullen, of Baltimore, Md., for improvement in Netting Machines: 27th June.

To Harvey H. May, of Galesburgh, Ill., for improvement in Machinery for Swedgingmold Boards, &c., for plows: patented 27th June.

To Gilbert D. Jones, of New York city, for improvement in Packing and Pressing Spices: patented 27th June.

To Augustus Girard, of Mobile, Ala., for improvement in Plumb Levels: patented 2d July.

To Luther Philleo, of Utica, N.Y., for improvement in Piano Fortes: patented 2d July.

To Thomas W. Harvey, of New York city, for improvement in Machinery for Nicking Screw Heads: patented 2d July.

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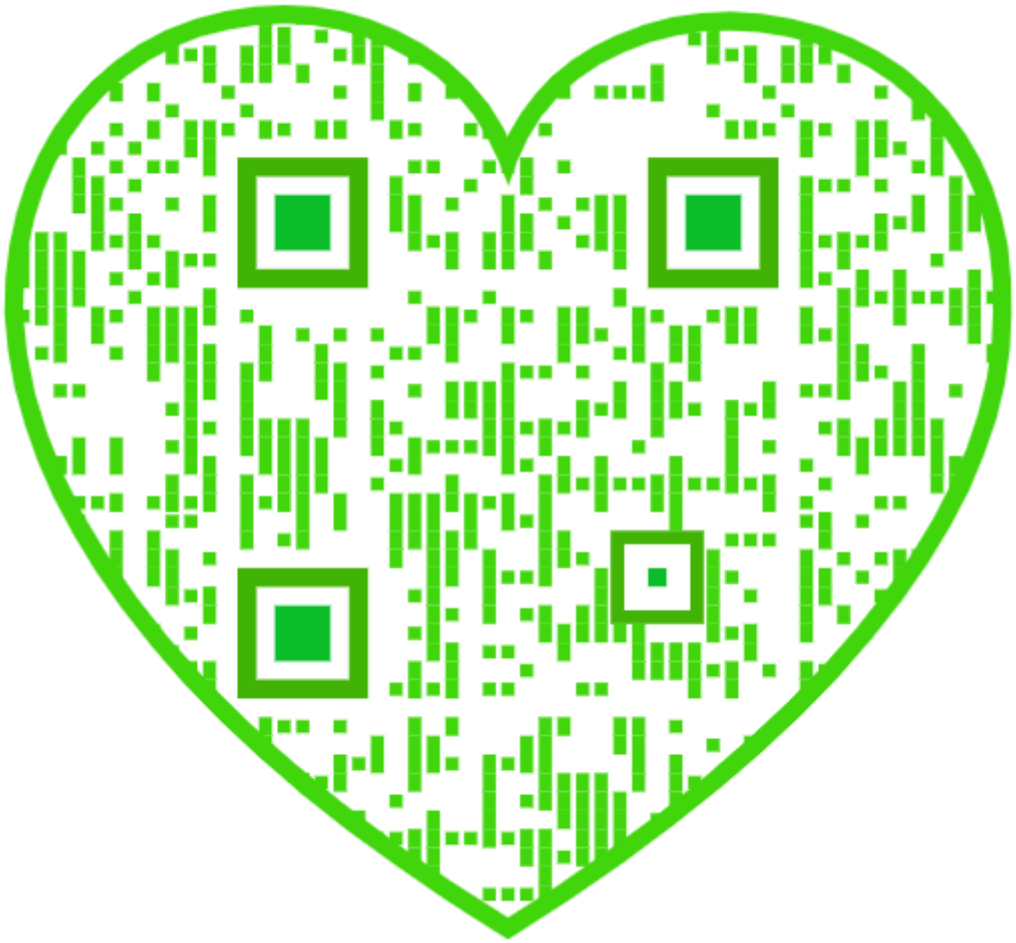

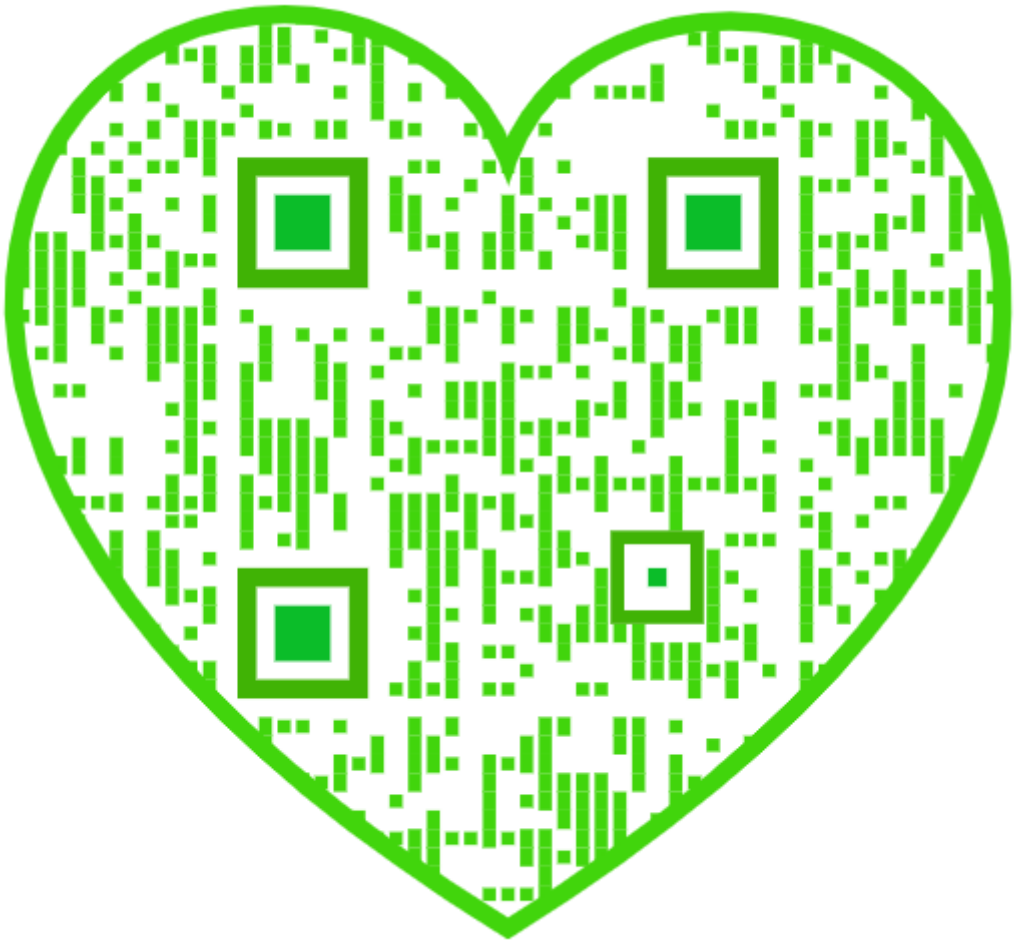

SCIENTIFIC AMERICAN

NEW-YORK, THURSDAY, SEPT. 17.

ENLARGEMENT OF THE NEW YORK Scientific American.

SECOND YEAR!

New Arrangements,

QUARTO FORM!

New and Beautiful Type!

The Publishers of the SCIENTIFIC AMERICAN beg leave to announce the commencement of the SECOND YEAR of their Journal. The first Number of the Second Volume will be issued on Saturday, September 26th, 1846. The paper will hereafter be conducted under a system of

ENTIRELY NEW ARRANGEMENTS

calculated to improve it in a vast degree.

In the first place it will appear in a handsome

QUARTO FORM,

rendering it much more convenient for preservation, as well as FOR BINDING,—and therefore more valuable.

In the second place, it will be printed on

NEW TYPE AND FINE PAPER!

This, together with a number of elegant engravings, published each week, will render it one of the most beautiful specimens of typography ever issued in America.

In regard to the CONTENTS of the *Scientific American*, the following will give an idea of what may be expected:

I.

ENGRAVINGS.—Each Number will contain from THREE to SIX ORGINAL ENGRAVINGS on the most interesting subjects, consisting of DRAWINGS of NEW INVENTIONS, Illustrations of the various ARTS, SCIENCES, TRADES, MANUFACTURES, &c. &c. The cost of so many new engravings, each week, is a heavy item. Much care will therefore be taken to select only THE BEST SUBJECTS.

II.

NEW INVENTIONS.—By means of a resident correspondent at Washington, in a measure connected with the PATENT OFFICE, our subscribers will always receive the first notices of any NEW INVENTIONS. Other arrangements for the purpose of securing the first intelligence of IMPROVEMENTS, &c., are in operation. The latest FOREIGN INVENTIONS will also be published.

III.

SCIENTIFIC INFORMATION.—In this department unusual care will be bestowed. Aside from the facilities already attained in this country, the Publishers have secured the services of an able Foreign Correspondent, now in Europe, to furnish the LATEST and BEST Scientific Information which can be obtained, as well as to forward other notices of the most interesting subjects.

IV.

ARTS AND TRADES.—Much valuable INSTRUCTION in various Arts and Trades, derived from the best sources, is frequently given. By means of this, any person may become familiar with the manner of making, and cost, of many articles in common use.

V.

MECHANICS.—Valuable essays and illustrations of the Science of Mechanics are often given.

VI.

CHEMISTRY.—Considerable attention will be paid to this very useful subject. Interesting articles, together with CURIOUS EXPERIMENTS are frequently published.

VII.

ARCHITECTURE.—Full instructions in regard to the best method of constructing buildings of all kinds. bridges, &c., will be given from time to time, together with the latest improvements in this art. To the Farmer, Mechanic, and indeed all, this will be found of much advantage.

VIII.

GARDENING.—Practical Instructions in regard to the art of Gardening, will be given in proper season, embracing the latest improvements, &c.

IX.

THE MISCELLANEOUS INTELLIGENCE will be found of more than usual interest. It will consist of notices of the progress of Mechanical and Scientific Improvements, descriptions of CURIOSITIES, together with a SHORT SUMMARY of PASSING EVENTS, and a great variety of other interesting Intelligence.

X.

This paper is especially entitled to the patronage of MECHANICS and MANUFACTURERS, being devoted to the interests of these classes. It is particularly useful to FARMERS, as it will not only apprise them of IMPROVEMENTS in AGRICULTURAL IMPLEMENTS but INSTRUCT them in various MECHANICAL TRADES, and guard them against impositions. As a FAMILY NEWSPAPER, it will convey more USEFUL Intelligence to children and young people, than five times its cost in school instruction.

TERMS.

The SCIENTIFIC AMERICAN is furnished to subscribers at $2 per annum, ONE DOLLAR IN ADVANCE. Five copies will be sent to one address six months, for Four Dollars in advance.

Persons wishing to subscribe, have only to enclose the amount with name and residence, in a letter directed to

MUNN & COMPANY,

Publishers of the "SCIENTIFIC AMERICAN,"

NEW YORK.

☞ All letters must be POST PAID.

To our respected Patrons.

This number completes the first volume of the Scientific American, and thereby fulfils in this respect our original pledge to subscribers: and considering this circumstance in connection with our severe misfortunes by fire and otherwise, and with the fact that twenty or more different papers which were started subsequent to the commencement of this, have long since been discontinued and abandoned, we cannot but feel some degree of exultation and self-congratulation that our determined perseverance has been crowned with so good success. On this occasion, however, we must not omit to present our grateful acknowledgments to our kind and obliging cotemporaries, for their timely and efficient aid, by generous and encouraging notices from time to time, without which, in all probability, the confidence of the public in our success would have been so feeble that it would have been extremely difficult for us to have sumounted the combination of difficulties, which beset our path. But having succeeded in placing this publication on a permanent and profitable basis, we were enabled to negotiate on favorable terms with the present publishers hereof, who bringing into the concern a liberal share of determined enterprise as well as experience in the publishing business, have placed this paper, in the scale of popularity, among the first papers in the United States. Of the multitude who commence the publication of a new paper, there are not probably one in twenty who are aware of the ordinary difficulties to which the publisher is exposed, of which may be reckoned as prominent, the prevalence of reprehensible negligence, or want of promptness among the newspaper dealers, who most naturally become the local agents of the publishers. But we have in general been remarkably fortunate in this respect, having but few causes of complaint, though we may be constrained to call by name one or more, unless we hear from them soon. We trust our subscribers, many of whom have expressed much approbation of our efforts, will continue their patronage, and we feel assured that our next volume will in many respects far excell the first, and will communicate such intelligence as will be worth ten times the cost to every attentive reader.—*Ed.*

TO CORRESPONDENTS.—We have duly examined the communication of "Philomath," on the subject of a Natural Universal Alphabet, but find it too long for insertion, though otherwise unobjectionable.

We would respectfully inform L. A. G., of Springfield, that we cannot fully comprehend the utility of the plan of machinery submitted by him, and must decline its insertion till we receive further instructions.

We may now venture to promise our correspondents "Yankee" of Providence, "Mechanic" of Cherryfield, S. B. of Naugatuck and R. L. of Navarino, that the subjects of their respective communications will be considered and answered in our next number.

AN UNLUCKY ERROR.—It was discovered after our last paper went to press, that the number of the paper was erroneously printed, representing it to be No. 50, instead of 51. Such an error would not have been important at another time; but occurring just at the time that we were reminding our patrons of the approach of the completion of the volume, it may have led some to defer due attention to the subject, a week longer than they might otherwise have done. We would call particular attention to the number, "52," of this paper, and solicit from those who have hitherto neglected it, a renewal of their subscription by the usual remittance.

Recent Fires.

On the 16th ult., a large tannery belonging to Mr. Simon Morrill at London, La., was destroyed by fire; and what renders the circumstance more remarkable is that it is the fourth serious loss which Mr. Morrill has suffered of a similar kind.

FIRE AT ST. ALBANS.—The Burlington (Vt.) Free Press records the total destruction by fire, of the large iron foundary of Messrs. Smith, with steam engine and machinery: Loss $8000.

AT LYNN, MASS.—On Sunday morning, the dyeing and printing establishment in the west part of Lynn, with all the out buildings, and a large grist mill and spice mill adjoining, were entirely destroyed by fire. The loss is estimated at from $18,000 to $25,000.

AT UTICA.—A large three story house corner of Liberty and Birchard streets, occupied by several manufacturing mechanics, was destroyed on Monday evening.

AT ALBANY, several fires have occurred within a few days, one of which destroyed nearly an entire square on Green, Arch, Ferry and Franklin streets. Two houses on Rose street, one of them including the JEWISH SYNAGOGUE, have been recently consumed.

THE SEASON.—It is generally admitted that the present season has been, thus far, remarkable in many respects. The time is not remembered when there has been such an abundance of fruit, so much hurry and bustle of business, and such general prevalence of health through the length and breadth of this country, as appears at the present time. Enterprise is in full play, and according to apparent indication, the advancement of this country in general improvement, in ten years to come, will at least equal that of the twenty-five years past. We might both speculate and moralize on this subject to some length, but cannot afford either time or space for it at present; for like the rest of the world '*we are in a hurry.*'

THE WEATHER.—On Sunday, Monday, and Tuesday, though near the middle of September, and the season in which we have been accustomed to experience cold North winds, not to say frosty mornings, the heat was even more oppressive than in July. The thermometer indicated high summer heat, and the sun's rays wherever they fell, produced a scorching effect almost beyond precedent in this climate.

Science of Mechanics.

Fig. 1. Fig. 2. Fig. 3.

CAMS.—There is probably a greater variety and diversity of motion produced by different modifications of the Cam, than by all other mechanical movements combined. There are an immense variety of Cams, but they have never been properly arranged in classes. In general, any eccentric or irregularly shaped revolving article, may be termed a Cam; especially if it is arranged to produce a motion, either regular or irregular in another part of machinery. The most simple form in which a cam is used, is that of an eccentric circle, which is sometimes used instead of a crank, in producing a rectilinear motion for the working of the valves in a steam engine. A cam of this kind is shown in the cut fig. 1. Fig. 2, is a heart-shaped cam, and is used to produce an irregular rectilinear motion, which is required to be more rapid during some part of the revolution of the cam, than in other parts. Cams of this form can produce motion in one direction only, while in the contrary direction the motion is usually produced by the force of gravity, or by the elasticity of a spring. In fig. 3, is represented an arbitrary and grooved cam. This cam having an irregular groove in one of its faces, a small friction roller or pulley, is inserted in the groove, and is thus compelled to move according to the direction of the groove, whether it be curvilinear, circular, or serpentine. In some of the most complicated machines, by means of a diversity of grooved and double grooved cams, nearly every variety of motion is produced which could be performed by the motion of the natural hands and fingers. Yet in general they are objectionable on account of the large proportion of friction to which they are subject, and which in general restricts the use of them to the smallest class of machinery. But when circumstances will admit of the use of friction rollers to work in the irregular grooves of a cam, or against its periphery, the objectional friction is principally avoided. The several cams above described, are supposed to have plain sides, and consequently to produce motion in one direction only, and may be designated as plain cams; but there is another kind which are sometimes used to produce peculiar compound motions, and may be denominated compound cams. These may be so constructed as to produce irregular vibratory motions, not only at right angles with the axle, but by lateral bending or projecting produce a motion in the direction of the axle. Thus if an eccentric cam like fig. 1, be so mounted that the axle shall pass obliquely through it, the periphery thereof will produce a circular motion, the axis of which is at right angles with that of the cam; and by other variations in the construction and formation of the compound cam, every kind of motion that can be imagined may be produced, effective and arbitrary.

Dancing on Nothing.

One of the most astonishing wonders that is exhibited by the jugglers of Hindostan, is the feat of dancing in the air without any apparent support. The performer first appears standing on a square box about two feet high, holding in one hand a cane, the end of which rests on the stump of a tree selected for the purpose. The audience being admitted within the curtains, the performer, after bowing, &c., commences dancing very dexterously on the box, to the music of a pipe or other instrument; and when the audience have sufficiently admired his dancing in that manner, the box is, apparently from motives of sheer mischief, suddenly withdrawn from under him by one of the spectators. Then appears the wonder of the performance; for the dancer without being in the least discommoded—not even appearing to notice the abstraction of the box, continues dancing as before. This having continued a short time, he stops, bows, thanks and dismisses the audience, who leave him standing without any other connection with the earth, than that by way of the cane and the stump.

The mystery is soon explained: the cane is of iron, but painted in imitation of a rude stick with bark on; one end of the stick passes down the centre of the stump, while the other end passes up the sleeve of the performer, and round his body just below the arms. From this a branch passes down his back to a girdle, which is drawn tight round his waist or hips. The part that passes down the stump is made, in some measure, elastic, so as to allow him a slight vertical motion during the performance, which adds to the mystery of the scene.

STEAMBOAT EXPLOSION.—On Thursday last, as the steamboat Excelsior was leaving the dock at the foot of Robinson street, with about 100 passengers on board, her boiler exploded, throwing some of the passengers into the air, and others in various directions, and instantly setting the vessel on fire, and which quickly became enveloped in flames, while the remaining passengers were taken off by small boats. Four persons were killed, or so injured as to cause their death shortly after. The hull of the vessel drifted over to the Jersey shore, and burned to the water's edge. It may be reasonably expected that this casualty will have the effect, for a time, to induce in steambot passengers, some degree of caution against standing about the boilers, while there is room enough in other parts of the boats.

New Inventions.

PROPELLING VESSELS BY A CURRENT OF WATER.—Mr. G. W. Fulton has applied for a patent for a mode of propelling vessels on the principle of a pump. A channel or aqueduct is constructed from the bows to the stern of a vessel, and one or more pumps are so arranged that being operated by steam power, they produce a continuous current of water through this channel, and consequently propel the vessel ahead or astern, as circumstances may require, by the force of reaction of the water forced through the pipe. We have seen a model in operation, but cannot anticipate very important results from the invention.

WOODBURY'S HORSE POWER.—Mr. Daniel Woodbury, whose invention we noticed some time since, entered the same for a patent on the 26th of August. The main wheel of this machine revolves horizontally, and one of its principal peculiarities, and which constitutes a principal item in his claim, is an arrangement by which two pinions on different sections of a horizontal shaft, take to the geer teeth of opposite sides of the main wheel at the same time.

IMPROVED STOVE.—A new cooking stove, containing a very curious, and we think a very useful feature, was entered at the Patent Office on the 26th ult., by Loftis Wood. The fire chamber of the stove contains a series of hollow grate-bars, which support the fuel at the bottom, and ascend vertically at the back of the fire chamber, and communicate with the oven; thus conducting so many currents of air—which necessarily becomes heated in its progress—to the oven *via* an intermediate air chamber. No one can doubt the efficiency of this mode of heating the oven, and it would not be surprising if this constant supply of fresh heated air with its oxygen, should give the bread a peculiar and improved flavor.

ANOTHER PROPELLING POWER.—Mr. H. M. Paine, (generally known as the "great unshot") has invented a new mode of propelling vessels, and which will succeed tolerably well when properly adjusted, though not altogether original in principle. It consists of a series of vertical paddles, which are put in operation by cranks, and so arranged as to retain at all times a vertical position. We have examined several projected plans on a similar principle, during the present season, and it is difficult to decide which is entitled to the preference. We shall probably illustrate some of these plans by engravings, soon, if not in our next number.

AN IMPROVED FILE.—Mr. Richard Flint, of Meriden, Ct., has invented a mode of manufacturing round or rat-tail files, of superior quality. The teeth of the file are cut in a lathe on the principle of screw-thread, the cutting tool being guaged and graduated by nicely adjusted machinery. Of course the files thus made are more uniform and perfect than can be made by any other process. The invention is secured by patent.

SPENCE'S ELEVATOR OR STEAM DOCK.—We should have mentioned in our last paper, that one mode in which Mr. Spence contemplates the application of his system of vertical cylinders for elevating vessels for repair, is to attach them to floating piers, so that the whole apparatus may be occasionally removed from one place to another, and independent of permanent wharves. He also purposes to sometimes apply water instead of steam to elevate the pistons within the cylinders. This plan of arrangement excites much attention, and will evidently command a preference over any thing of the kind in present use.

ANOTHER "PERPETUAL MOTION."—These inventions are becoming very plenty. Mr. J. O. Dalton publishes in the "Feliciana Whig," a declaration with an affidavit that *he has perfected* a machine which demonstrates his *complete success;* and therefore asks for a thousand dollars to build a model, engine, &c., but *refuses* to receive the money of any person who has any doubts of the truth of his discovery. This *refusal* is altogether superfluous, as no person but a very *flat*, and who is capable of believing in impossibilities without any rational evidence, could be expected to furnish the money. But we will unhesitatingly engage to furnish Mr. J. O. Dalton with ten times that amount at ten hours notice, whenever he will present any rational demonstration of the reality of his discovery. If he cannot do that, whoever furnishes money for the purpose of bringing forward the invention, may expect to find himself duped.

Jumble.

The Chronotype denies that the Boston Post is a *religious* paper, because it does not advocate *hanging.*—The *fare* on the intelligence transmitted between Albany and Buffalo, by the magnetic telegraph, is 35 cents for every ten words.—A severe snow storm occurred on the mountains of Santa Fe, on the 19th of June, and on the 24th a tremendous hail storm occurred on the St. Charles.—On the sides of Mount Etna are about 77 cities, towns and villages, containing about 115,000 inhabitants. Hatters are said to have been very *fur*-ious fellows, notwithstanding their *nutra*-lity, whenever they have *felt* an inclination for a good *nap.*—A man was seen the other day carrying a peck basket, which held exactly two *hogs heads.*—To what color does a flogging change a boy's complexion? It makes him *yell-O!*—It is said of a young lady, that she was so modest that she blushed through her paint.—There are 3444 vehicles in Paris, including 340 omnibusses.

BEAR AND FORBEAR.—This sentence contains a wholesome admonition, and not unfrequently constitutes the title of a tale or piece of sage advice; but we were somewhat amused recently by observing these words painted over the doors of a pair of dog-kennels belonging to a gentleman residing in the upper part of the city; the name of one of the dogs is "Bear," and the other "For-bear."

VARIETY

The number of companies engaged in the copper business in actual operation in the United States, is about 90, and the capital invested is estimated at about $15,000,000.

There are, in Massachusetts, nineteen manufactories of copper ware, which produce annually about 2,500,000 lbs., which is valued at $610,900. This branch of manufacture is rapidly increasing.

"My dear Polly," said Mr. Smith, "I am surprised at your taste in wearing another woman's hair on your head." "My dear John," replied the lady, "I am equally astonished that you should wear *another sheep's wool* on your back."

An exchange paper recommends that business men retire from business when they get a competence—it says there should be a rotation of chance at the sweet bunghole of fortune.

The Rev. Thomas Pomp, of Easton, Pa., has within the last fifty years, married 1,972 couples, and is expected to make up the number, within the present year, to 2000.

A Chinese wife having concealed her paramour in a sack, was questioned by her husband as to its contents. The woman hesitating, a voice from the sack responded, *nothing but rice.*

It is estimated that in the single town of Somerville, Mass., sixty millions of bricks were manufactured during the last year. In Cambridge fifteen millions were manufactured by one company.

The county of Schuylkill, Pa., which a few years ago was a wilderness, now contains 40,000 inhabitants, $30,000,000 of capital, and *fifty miles of railroad under ground* among the mines.

Nearly one hundred thousand emigrants from foreign parts have landed in this city since the first of March last, being an average of about five hundred and fifty per day.

"The Ladies," have been toasted as "the principal aristocrats of the Republic: they are not willing that any man should be *free*, and will not readily believe that *all men are equal.*"

The village of Fall River, Mass., contains 11,174 inhabitants; the population having increased within a year 834. The village is beautifully situated, and enjoys many excellent facilities.

The steamer Matamoras, ran between this city and Albany last week, in seven hours and ten minutes, running time. This is said to be the quickest time on record.

A certain celebrated lady says that the recent hot weather is all owing to the annexation of them hot countries, Texas, Mexico and California. Before we meddled with them we had no such weather.

It is currently reported, says the Albany Knickerbocker, that two watchmen were seen in that city on Friday night. Whether they were asleep or awake, he has not deigned to inform the public.

The Boston Chronotype, speaking of the application of the new gas engine to driving a printing press, supposes that some of the city papers might furnish *gas* enough to work the engine.

The Hartford Courant complains of the extensive ravages of the *honey-bee*, by boring holes in the fruit on the trees, which is immediately followed by rot in the fruit. This is a new evil, but rather serious.

Our friend Hathaway, of patent stove notoriety, has sold rights in his invention to the amount of $100,000, as recently stated before the U.S. Circuit Court, in Boston. Surely he *hath-a-way* of making sales.

Education is proceeding in Turkey with giant strides. Twenty thousand schools are to be forthwith established throughout the country, and a normal school for teachers is to be instituted at Constantinople.

There are reported to be in circulation, spurious Mexican dollars, in which a piece of cheap metal is encased with thick plates of silver. The fraud cannot be detected without deep cutting.

A storm occurred at Ballston, on Tuesday week, accompanied with hail as large as hens' eggs, and the lightning shattered to fragments several telegraph poles, and consumed a barn.

The Albany papers report that the thermometer at Greenbush ferry, one day last week, indicated 106 degrees. This was probably somewhat above the average temperature in the shade.

A girl in Baltimore has been arrested five different times, at the suit, or on the complaint of her father; but has been each time honorably discharged. It is time for the father to be hauled up.

It is confidently asserted that glass may be readily bored or drilled, by having a drop of solution of camphor in spirits of turpentine placed on the spot to be bored. We have not tried it.

The Autumnal inspection of the Boston Brigade, under the command of Col. Wm. H. Spooner, will take place on Wednesday, the 23d inst. It will be a showy parade.

We have many more interesting things to communicate to our readers, but must defer them; and this is the last item of the last column of four-liners that we shall have the pleasure of writing.

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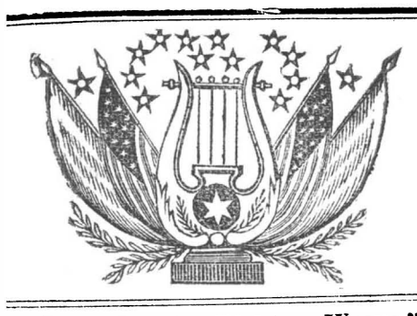


"Our Country Right or Wrong."

Our interests, "right or wrong,"
Cries the pirate on the seas,
While waving from the mainmast peak,
His black flags woos the breeze.
There's a gallant craft in view,
And while we raise the song,
Hoist all sail and bear away
For our interests. "right or wrong."

While rogues of every dye
Take comfort from the thought,
Though Justice wears a band,
Yet lawyers may be bought:
For their practice and their fees,
They raise the welcome song—
Hurrah, hurrah, for law, my boys!
Our clients, "right or wrong!"

Our order, "right or wrong,"
Was the old mystic cry,
When, 'mid the elemental strife,
Wound up that loud death cry;
And other crimes as dark,
Have been sanctioned by that song,
By brethren in full chorus joined,
Our order, "right or wrong."

Rome's minions with the rack,
Mecca's prophet with the sword,
With their doctrine, "right or wrong,"
A cruel, barbarous horde—
With bleeding hearts and limbs,
With the stake and martyr's song,
Teach these heretics a lesson!
Our religion, "right or wrong."

Oh! see on India's plain,
That flame ascending high;
It is the widow's sacrifice—
None heed her bitter sigh:—
Beneath the idol's car,
Comes forth the heathen song—
Go, drive the teacher from our shores!
Our customs, "right or wrong."

Ah! look again and see
What armed host appears?
'Tis England's myrian throng,
Who right nor justice fears.
Our country here demands
A slavish conquered race,
Then in fire and blood we'll trace
"*Our int rests*, right or wrong."

"Our country, right or wrong,"
Let the partizan exclaim;
We see a juster creed,
A more exalted fame.
Ye men with hearts and heads,
Haste on the glorious sight!
Ye men with pens and types,
Oh! SET OUR COUNTRY RIGHT!

A Gem:

FROM FANNY FORRESTER.

Give me my old seat mother,
With my head upon thy knee;
I've passed through many a changing scene,
Since thus I sat by thee.
Oh! let me look into thine eyes—
Their meek, soft, loving light
Falls, like a gleam of holiness,
Upon my heart, to-night.

I've not been long away, Mother;
Few suns have rose and set,
Since last the tear-drop on thy cheek
My lips in kisses met.
'Tis but a little time, I know,
But very long it seems;
Though every night I came to thee,
Dear Mother, in my dreams.

The world has kindly dealt, Mother,
By the child thou lov'st so well;
Thy prayers have circled round her path;
And 'twas their holy spell
Which made that path so dearly bright;
Which strewed the roses there;
Which gave the light, and cast the balm
On every breath of air.

I bear a happy heart, Mother;
A happier never beat;
And, even now, new buds of hope
Are bursting at my feet.
Oh! Mother! life may be a dream;
But if such *dreams* are given,
While at the portal thus we stand,
What are the *truths* of Heaven!

I bear a happy heart, Mother;
Yet, when fond eyes I see,
And hear soft tones and winning words,
I ever think of thee.
And then, the tear my spirit weeps
Unbidden fills my eye;
And, like a homeless dove, I long
Unto thy breast to fly.

Then I am very sad, Mother,
I'm very sad and lone;
Oh! there's no heart whose inmost fold
Opes to me like thine own!
Though sunny smiles wreathe blooming lips,
While love-tones meet my ear;
My Mother, one fond glance of thine
Were thousand times more dear.

Then with a closer clasp, Mother,
Now hold me to thy heart;
I'd feel it beating 'gainst my own,
Once more, before we part.
And, Mother, to this love-lit spot,
When I am far away,
Come oft—*too oft* thou canst not come!—
And for thy darling pray.

Lightning Conductors.

From the Worcester Spy.

MR. EDITOR:—My attention has been called to an article in the Spy of July 8th, giving direction how to *construct* and *apply* Lightning Conductors, which, if observed, the writer says, will ensure the safety of buildings as far as human means can accomplish it. Certainly sir, the author, Mr. H., must be in possession of a great embodiment of wisdom and knowledge. With your permission I will give your readers a brief outline of the principles upon which we rely for security in Metallic Conductors, as I understand them; and also of the plan upon which I construct Rods, together with the reasons why I adhere to this plan, and think it preferable to any other. 1st. All metals in a crude state are non-conductors, and are so until they take a certain form, hence it is found that by giving them a proper form, they will convey a spark or body of electricity from a positive to a negative body, or such a proportion of it as is necessary to produce an equilibrium between them; and as electricity pervades every terrestial substance, and a larger quantity can be accummulated upon some than is their natural proportion, yet, upon its first coming in contact with another body that is a good conductor, it parts with its unequal proportion. The best conductors are Gold, Silver, Platina, Copper and Iron. Even these, when constructed into a rod of the most perfect form, and applied upon the most scientific principles, may be rendered non-conductors by placing the discharging end of the Rod in a glass bottle, hard rock, or dry sand. It becomes evident then, that, it acts not by attracting the electric fluid after the manner of a magnet, but by conducting it to the earth, (and when the conducting medium is interrupted by the interposition of a non-conductor, the rod loses all its power over a flash of lightning;) for that moisture of which it is in pursuit. Even here its discharge is limited by the amount of moisture at the terminus of the rod; hence, the necessity of several communications from all conductors to the earth. One eminent Professor tells us, that the conducting power of water is two hundred thousand times less than that of iron. We feel confident in the metallic iron, because it is a better conductor when properly adjusted than the human body or any other substance by which we may be surrounded, and electricity cannot be induced to leave a good conductor for a poorer one.

Second—THE PLAN AND REASONS:

I point my Rods both at the top and the bottom; at the top that they may receive the fluid gradually, or no faster than it can escape at the bottom; and at the bottom, that it may escape easily without an accumulation upon the rod, and a consequent explosion. That part of the rod which I insert into the earth is pure copper, for the reason that it will remain a good conductor for a long time, whereas the earth coming in contact with the iron soon renders it useless. I set a spire at the end of the ridge pole and at the end of the corner rafter, because damage by lightning is more frequent from one cloud to another in nearly a horizontal line, than by perpendicular discharges from the clouds to the earth.

When the lightning is passing from one cloud to another a rod in the centre of a building can be of little or no use, for if the timber is nearer the spark when it is first influenced by the rod, than it is to the rod itself, it will first take the timber as a conductor to the rod, else why is it that such cases do so frequently occur. I connect the whole together by one continued chain, that it may have a free communication over the whole rod, and not enter the building, as it would do if there were two rods upon the building not connected. I use 3 8 inch square, rough, twisted, concave spire, because I can catch a spark upon any part of it without explosion, and consequently without harm, which cannot be done with a round or convex rod.

If I am not mistaken, all Electricians agree that the fluid follows the surface, and not the pores of the metal, "H" recommends a 5-8 rod which would present a surface of 1 7-8 inches. I always run two lines to the ground, and frequently 3 or 4. The surface of two rods 3-8 inch square, is 3 inches, a surface more than one third greater than there is to the single rod proposed by "H." I have confidence in those "thousand bristling *wiry* rods" which so much offend the eye of "H." (by the way I would say to him, every one to his fancy as the man said when he kissed the old cow, for I think that most people consider them an ornament,) because I can show in a multitude of instances, that those rods have proved effectual in conveying the lightning harmlessly to the earth, and as many more where the old-fashioned rod has proved worthless.

Now for the "Painted Rod." This idea must certainly be original with your correspondent, and if any one thinks otherwise let him try the miserable, rusty rod that is free from earth, and the painted rod, with a spark from an electrical machine, and give the premium to the one, this is true. T. H. RICE.

ENTERPRISE IN THOMASTON, ME.—This town which has long been celebrated for industry in the lime and lumber business, is said to be still going ahead. The east part of the town is being improved by several new wharves and blocks of buildings, while in the south section a dam is about to be built across the Wistkeag river, where it is expected that with several other mills, a cotton factory is to be erected. A route for a canal is also being surveyed, and stock therein to the amount of $49,000 has been already subscribed. That is the right course. Let Yankees go boldly forward in advancing facilities and public improvements, and they need not fear the effects of the reduction of Tariff duties.

PUMICE STONE AFLOAT.—The ship Helena on her late passage from Batavia to Canton, when in latitude 16 N, longitude 125 E, fell in with immense fields of floating pumice stones, apparently not having been long erupted, as samples that were picked up were perfectly clear of slime or grass, which would not have been the case had it been long afloat. Many pieces were as large as a common bucket. They are supposed to have been recently thrown up by a submarine volcano.

Remarkable Properties of Charcoal.

It is well known that under certain circumstances, charcoal is almost indestructible. The stakes driven into the Thames by the ancient Britons, for obstructing the approach of Julius Cæsar, were taken up about fifty years since, having become charred, and thus preserved from decay. The wheat and rye found in the entombed Pompeii and Herculaneum, had become charred in the slow changes of time, and are so perfectly preserved, as to be easily distinguished from each other. Fragments of charred wood are familiar to the geologist, under the name of lignite, which have existed for periods inconceivably longer than those of human history. It would seem that wood, under certain circumstances, has the properties of charring spontaneously, as appears in the exterior of the timbers of the houses of Pompeii and Herculaneum, as well as in the above examples. In all these cases, the charcoal was protected from direct atmospheric agency by being buried in water or earth. It is very remarkable, however, that charcoal, under other conditions, decays rapidly. A few years since, the writer dug up a quantity of gravel, containing a large proportion of fine charcoal. The ground had once been the site of a blacksmith's shop, and was subsequently covered with a layer of other gravel.—It was black with the charcoal, and was used with some barn yard manure in making an artificial soil for a garden over clay ground, and on being well exposed by the tillage to the atmospheric agencies, in 2 years the charcoal entirely disappeared, leaving a dark, rich looking soil, which all the while supported a dense growth of vegetation. One of the most extraordinary, and we may say mysterious properties of charcoal, (for science can only show us the fact, without explaining it satisfactorily,) is, that a piece of charcoal will absorb, without chemical change, many times its bulk of air and other gases and vapors. It will absorb more than eight times its volume of air, and it is a fact of great interest to the agriculturist, that it will absorb more of ammonaical gas, than of any other, viz. 90 times its volume if it has been recently ignited. The porosity of charcoal seems to be the cause of this absorption, and the different gases has been supposed to be the cause of the different degrees in which they are absorbed. But that it should absorb more than its bulk of any gas, without chemical agency, seems truly wonderful.

How valuable are these proprieties to the farmer! Charred posts, well set, will give him an enduring fence. Refuse charcoal freely used about the stable, will sieze on and preserve from evaporation the richest manure, ammonaical gas—and then in the soil will gradually yield it as wanted to vegetation, and by its own decay also and abundantly to the food plants. Thus as the traveller blew hot and cold with the same breath, so by the same process of charring, the farmer prepares a substance which will either last for centuries, or decay in as many months, as may be required.

Morse's Telegraph in France.

The Paris correspondent of the National Intelligencer writes as follows:—"Professor Morse had the goodness to send to me an account of the recent achievements of the Electrical Telegraph, with a copy of the Baltimore Sun, containing the President's Message on the Mexican War, as it was magically transmitted to that paper. I sent the communication to Pouillet, the Deputy, author of the Report heretofore mentioned to you, and he placed them in the hands of Arago, who submitted their very interesting and decisive contents to the Academy of science and the Chamber of Deputies. In the Chamber on the 18th, when the proposed appropriation for an Electrical Telegraph from this Capitol to the Belgium frontier, came under consideration, Berryer opposed it on the ground that the experiment of the new system was not complete; that it would be well to wait for the full trial of what was undertaken between Paris and Rouen. Arago answered: 'The experiment is consumate in the United States, the matter is settled irresistibly. I received three days ago, the Sun, of Baltimore, with a letter from Mr. Morse, one of the most honourable men of his country, and here is the President's Message, printed from the Telegraph, in two or three hours; the message would fill four columns of the Moniteur, it could not have been copied by the most rapid penman in a shorter time than it was transmitted. The galvanic fluid travels seventy thousand leagues per minute.' The appropriation, of nearly a half million of francs, was passed with only a few dissenting voices.

READING IN RAILROAD CARS.—Imperfect vision seems to have increased since railroad travelling was introduced. An exertion of unusual intensity, both of the mind and muscles, is required to read with any degree of satisfaction while the cars are moving rapidly on the track. The prolonged effort brings an a dimness of sight, not unfrequently followed by a pain in the forehead, from a determination of blood to that part of the brain in the unnatural attempt to read while in rapid motion. The practice is exceedingly injurious, and should be abandoned by those who have any desire to use their eyes in old age.

UTILITY OF HOGS.—The grunters and squealers of this and other cities have frequently been spoken of as city scavengers, but they were hardly expected to act in the official capacity of policemen. An instance of this kind, however, has occurred in Cincinnati, where the hogs are much more refined and dignified than in most other places. A couple of rowdy loafers having engaged in fight, clenched and rolled into the gutter. A matron sow, being disgusted by their conduct, seized one of them by the legs, and commenced tearing his trowsers, which immediately broke up the fight, and the parties were glad to escape from the ruthless officer.

ATLANTIC AND OHIO TELEGRAPHS.—It is stated in the National Intelligencer, that this line will be pushed forward with all possible despatch, and that efforts are making to reach Cincinnati before January.

Shape of the Earth.

The level portions of the earth's surface seem at first view perfectly flat. But if we examine them more critically, and for a considerable extent, we shall find that they are decidedly convex, or swelled out in the middle. The light of a light-house requires to be raised, in order to be seen at any considerable distance. Let it be placed on a level with the sea, and a person of common height, or whose eyes are less than six feet above the surface of the sea, would not be able to see it at the distance of four miles, however strong and clear the light might be. But upon raising himself higher and higher, he would at length, when his eye had reached an elevation of ten or eleven feet above the surface, be able to discern it just grazing the surface of the water. The same effect would be produced if the light were raised ten or eleven feet, and the eye of the observer were on the level of the ocean. And a light 60 or 100 feet high disappears in like manner by sinking lower and lower; only the distance at which we are required to place ourselves to produce this effect, becomes greater and greater according to the elevation of the light, and according also to our own elevation above the level of the sea. The most convenient position for a nice observation of this kind is an extended lake, when covered with smooth ice. We will suppose ourselves provided with a common leveling instrument, or any long tube capable of being fixed in an exactly horizontal position, which is easily determined by a water-level or by being at right angles to a plumb-line. Let us suppose that the line of sight through the tube is precisely four feet from the ice, and that the tube can be turned in all directions without varying from a horizontal or level position. If we now look through the tube at an upright rod or pole placed with one end on the ice at different distances, we shall be able to establish, in the most satisfactory manner, the following important facts.

1. The line of sight, or *apparent level*, as it is called, departs from the surface of the ice, or *true level*, in whatever direction we look.

2. This departure, or *difference of level*, is the same in all directions as to the points of the compass, where the distance from the observer is the same.

3. The difference of level for a distance of one mile is 8 inches.

4. If we double any distance, the difference of level is quadrupled, and if we triple the distance, the difference of level is nine times as great, and so on, according to the law of the squares; that is, the difference of level for one mile being 8 inches, that for two miles is not twice 8, but four times 8, or 32 inches, and that for three miles is 9 times 8, or 72 inches.

Similar observations being made in other places in different parts of the earth, we arrive at essentially the same results.—*Dr. Lardner.*

THE FINE ARTS UPON CAPE COD.—The Massachusetts papers speak in glowing terms of Mr. Geo. G. Fish, an artist residing at Hyannis, who promises to become a distinguished painter, and who has already painted some highly meritorious pieces, one of which—"Betty Smith, an old Indian woman living at Content," is at the Boston Athenæum.

IBRAHIM PACHA AND HIS DAUGHTER.—Some of the French papers tell old stories of the Pacha's gallantry, which only want the simple ingredient of truth to be amusing. One of the stories runs as follows:—

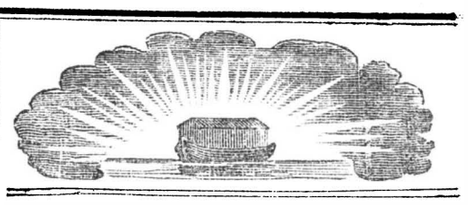
A lady who enjoys a high degree of admiration in her circle of society, ventured to asked the Pacha what she would sell for in the Cairo market. His Highness, after examining her very attentively, answered with true Oriental *sang froid*, "Probably from two to three thousand francs." The lady was about to exclaim against a valuation so much beneath her own estimate of her individual worth, when a young attache of a foreign embassy, who had formerly visited Egypt, assured her that she need not be offended, for that the most beautiful Odalisques seldom realized more than 1000 to 1200 francs.

VERY LATE FROM TOM THUMB.—This illustrious person lately visited Stamford, England, where Daniel Lambert died in 1809. Mr. James Dixon, of St. Martin's, produced a suit of the giant's clothes, with which General Thumb was highly delighted. He passed through one of the sleeves of the coat and got into one of the stockings, in which he had as much room as a man would have in a sack. In return for Mr. Dixon's civility, the General presented that gentleman with a suit of *his* clothes, and promised to send him a pair of his boots.

THE WATER OF JORDAN.—Since the use of water from the river Jordan, in the baptismal ordinance of one of the Princes Royal, there is such a demand for the article, that the London Punch gravely recommends the formation of a company with a heavy capital for the purpose of bottling and importing the Jordan water for the use of the churches.

PRESERVATION OF A CHILD.—A small child was let fall by accident between the cars of a railroad train at Philadelphia last week, where it lay with its head against one of the rails, the wheels grazing it as they passed, its little hands beating against the wheels. Providentially, it only lost a portion of its hair.

AS WE EXPECTED.—It was remarked on the election of delegates to the State Convention, that a large portion of them were lawyers. We now have a fair sample of the fruits of such selection. There is not, nor ever has been, so much common sense and common justice outraged by any other part of the present Constitution, as by the Judiciary article. The Convention have now, after a discussion of the subject for nearly a month, concluded to let it remain very much as before, only rendered still more complicated. The fact is, it is past the art of even New York lawyers, to concoct a system furnishing greater facilities for legal and judicial swindling, than the present.



The Words of the Lord.

"But I would not have you be ignorant, brethren concerning them which are *asleep*, that ye sorrow not, even as others which have no hope. For if we believe that Jesus died and rose again, even them also which *sleep* in Jesus will God bring with him. For this we say unto you by the word of the Lord, that we which are alive and remain unto the coming of the Lord, shall not prevent (or go before) them which are *asleep*. For the Lord *himself* (this same Jesus that Peter, James and John, saw ascend up into heaven,) shall descend *from heaven* with a shout, with the voice of the archangel, and with the trump of God: and the *dead in Christ* shall rise first: Then we which are alive and remain, shall be caught up together with them in the clouds, to meet the Lord in the air: and so shall we ever be with the Lord. Wherefore, *comfort one another with these words*. Amen."—*Paul.*

DISMAL CROAKING.—A late number of the "N.Y. Protestant" has an article commencing with the following gloomy language:

"Who is the man living that shall not see death? "Mortal men dwell in houses of clay; their foundation is in the dust, and they are crushed before the moth." Neither they who trust in wealth, nor the man of poverty, can redeem life from the grave It is the place appointed for all the living.

The author appears to have entirely forgotten or overlooked the plain words of the Apostle, "We shall *not* all sleep," &c. It appears to us to be a gloomy and dull sort of religion which tends to hold up death and the grave as the most prominent subjects of contemplation. And nothing appears more evident by common observation, than that dwelling on such subjects has a direct tendency to induce in the minds of children and youth, an aversion to the whole subject of religion. Those who would advance the cause of religion, should represent it as a joyful subject, as it truly is, and endeavor to dispel the natural aversion which mankind naturally entertain towards subjects which are gloomy as well as serious.

TWO CHRISTIANS.

Two good men on some occasion had a warm dispute; and remembering the exhortation of the apostle, 'Let not the sun go down upon your wrath,' just before sunset, one of them went to the other, and knocking at the door, his offended friend came and opened it, and seeing who it was, started back in astonishment and surprise; the other, at the same time, cried out, 'The sun is almost down.' This unexpected salutation softened the heart of his friend into affection, and he returned for answer, 'Come in, brother, come in.' What a happy method of conciliating matters, of redressing grievances, and of reconciling brethren!

SPONTANEOUS COMBUSTION OF LIVE TREES.—An extraordinary phenomenon has recently appeared in England, in the spontaneous combustion and consumption by fire of trees, particularly the willow. On the banks of the river Cam, several instances of this kind have occurred. "It was really astonishing," says the Cambridge Advertiser, "to look upon a fine willow, in the full vigor of robust vegetable health, pouring forth clouds of smoke from its half-burned stem, and doomed speedily to expire—itself its own funeral pile. How explain this? How account for the fact that this tree, yet hale and green, covered with a rich mass of foliage and flourishing 'like a green bay tree' on the river bank—should suddenly burst forth into ignition, burn like tinder to its very core, and to-morrow be prostrate! There is no putrescence—we think there can be no fermentation in this process. The tree which we observed last week, as stated above, is now prostrate—its very foliage charred, a vegetable ruin—as if stripped, shattered, blasted, and half consumed by the electric fluid."

PHENOMENA ON A SMALL SCALE.—Most of our readers have observed the reports which have appeared in various papers of an apparent contagion among insects, especially the house-fly. They are frequently seen disabled, endeavoring, but in vain to fly. A friend of ours—a curious genius to whom we have more than once had occasion to allude—has recently investigated the subject, and discovered that the flies were beset with small vermin which had consumed the wings of the flies, and otherwise injured them. Following up his observations in this line, he discovered by the aid of a microscope, that the smallest ordinary insects, even the minute wood-louse or death-watch, was beset with numbers of active animalculæ, which appeared likely to destroy them. Perhaps those who exhibit the solar microscopes may discover a greater variety of curiosities in minutia than ordinary.

MCCORMICK'S REAPING MACHINES.—We learn from the farmers that the new reaping machines imported this season have worked exceedingly well. The machine is drawn by two horses with ease, and is attended by a man to rake, a boy to ride and drive, and a raker who takes a seat on the side of the machine, and rakes off the wheat at the side in bunches ready for binding. The knife has a sickle edge, and plays horizontally; and is represented to cut one hundred acres without sharpening. The quantity of wheat cut per day averages from 15 to 20 acres. —*Chicago Journal.*

AN ABOLITION PAPER AT WASAINGTON.—Efforts are being made, elsewhere, to establish an abolition or anti-slavery semi-monthly paper in Washington. At a convention in Illinois, more than two thousand copies were subscribed, and the cash collected. A gentleman has made an estimate of the cost of printing, and says that he is not afraid to undertake the work.

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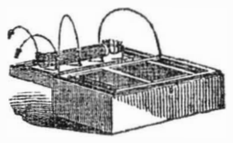

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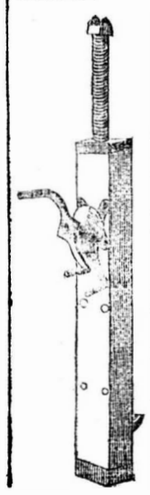

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STATE OF NEW YORK, SECRETARY'S OFFICE,
ALBANY, July 24, 1846.

TO the Sheriff of the City and County of New York: Sir—Notice is hereby given, that at the next General Election, to be held on the Tuesday succeeding the first Monday of November next, the following officers are to be elected, to wit:—A Governor and Lieutenant Governor of this State. Two Canal Commissioners, to supply the places of Jonas Earll, junior, and Stephen Clark, whose terms of service will expire on the last day of December next. A Senator for the First Senatorial District, to supply the vacancy which will accrue by the expiration of the term of service of John A. Lott on the last day of December next. A Representative in the 30th Congress of the United States, for the Third Congressional District, consisting of the 1st, 2d, 3d, 4th and 5th Wards of the City of New York. Also, a Representative in the said Congress for the Fourth Congressional District, consisting of the 6th, 7th, 10th and 13th Wards of said City. Also a Representative in the said Congress for the Fifth Congressional District, consisting of the 8th, 9th and 14th Wards of said City. And also a Representative in the said Congress for the Sixth Congressional District, consisting of the 11th, 12th, 15th, 16th, 17th and 18th Wards of said City.

Also the following officers for the said County, to wit: 16 Members of Assembly, a Sheriff in the place of William Jones, whose term of service will expire on the last day of December next. A County Clerk in the place of James Conner, whose term of service will expire on the last day of December next, and a Coroner in the place of Edmund G. Rawson whose term of service will expire on the last day of December next.

Yours, respectfully,
N. S. BENTON, Secretary of State.

Sheriff's Office, New York; August 3d, 1846.

The above is published pursuant to the notice of the Secretary of State and the requirements of the statute in such case made and provided for. WM. JONES,
Sheriff of the City and County of New York.

☞ All the public newspapers in the County will publish the above once in each week until election, and then hand in their bills for advertising the same, so that they may be laid before the Board of Supervisors, and passed for payment.

See Revised Statutes, vol. 1, chap. vi. title 3d, article 3d—part 1st, page 140. aug 18 tE.

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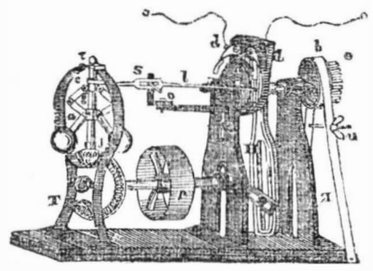

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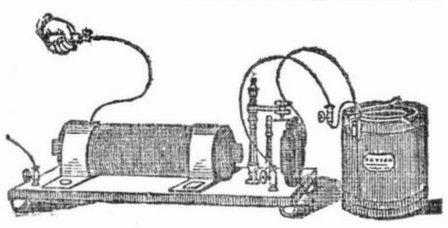

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